

REMARKS

In the Office Action dated October 28, 2008, the Examiner rejected claims 6 and 16 under 35 USC § 102(b) as being anticipated by Sakagami et al. (US Patent No. 5,961,291, "Sakagami"). Applicant traverses this rejection and seeks favorable reconsideration in view of the following remarks.

The Examiner asserts that Sakagami teaches a method of reducing the incidence of restart failure in a dry pump comprising monitoring the temperature of a dry pump mechanism after cessation of the pump (citing column 3 lines 62-65 and column 4 lines 14-18) purportedly because the Examiner "... notes that to keep within a temperature range as suggested, the temperature must [emphasis supplied] be monitored."

Applicant respectfully submits that the Examiner is making an inference, not from that which is disclosed by Sakagami, but from that which the Examiner thinks. Indeed, Sakagami does not disclose monitoring of temperature of dry pump mechanism, nor that the temperature must be monitored but does disclose a first sensor which detects the RPM of the rotary shaft, a second sensor for detecting an abnormality of the rotary shaft, a first controller for displacing the rotary shaft by a predetermined amount on the basis of the detected values of the first and second sensors, and a second controller heats the stator to a predetermined temperature range (column 4 lines 7-18).

Applicant submits that monitoring the temperature of the pumping mechanism is not disclosed by Sakagami, and it appears just as likely, if not more so, that the detection of the RPM and of the abnormality of the rotary shaft provides the input to the first controller and the second controller which heats the stator. Moreover, the present invention does not heat any part of the pumping mechanism as is disclosed by Sakagami and which is required to free up components in an effort to make restart more likely. (See column 4 lines 44-53.)

The present invention does not claim a heater or a heater controller, does not apply heat, and therefore does not apply heat for the purposes of Sakagami. Instead, the

present invention refers to the heat already in the pumping mechanism as a result of its operation, and the pump controller merely measures the pump reduction, in order to determine when to switch the pump back on. Sakagami clearly does not disclose, or even acknowledge that but for the necessity to apply external heat to the pump, there wouldn't even be a predicate to monitor the temperature of the pump as is expressly claimed in claim 6 of the present invention, and which is purportedly identically disclosed by Sakagami.

Applicant respectfully submits that in view of the above remarks, claim 6 is not anticipated by Sakagami and is furthermore not anticipated because each and every element of claim 6 is not identically disclosed by Sakagami.

With respect to the Examiner's rejection of claim 16 which depends from claim 6 as anticipated by Sakagami, the Examiner implicitly argues that Sakagami discloses a controller that is able to shorten the necessary time period by the detection of some parameter(s) and that Sakagami teaches a "method [that] is performed before the start of the pump, and stopped once starting period is finished."

Applicant notes that claim 16 depends directly from claim 6 and is not anticipated by Sakagami for at least the above-stated reasons that claim 6 is not anticipated by Sakagami. In addition, the method of claim 6 is virtually the opposite of Sakagami, because the end point of the presently claimed method is predetermined either by a predetermined temperature or predetermined time limit, instead of requiring, as is disclosed by Sakagami, an ongoing calculation or monitoring to determine when to stop the operation. (See Sakagami column 4 lines 29-38.)

Thus, Sakagami discloses the removal by scrapping of the buildup of already formed reaction product deposits, as contrasted to the presently claimed method of an ongoing purge, at selected intervals, of portions of the reaction products, and then terminating the ongoing purge once a satisfactory predetermined temperature is reached or a predetermined time limit has passed.

Applicant respectfully submits that claim 16 is not anticipated by Sakagami.

The Examiner has rejected claims 7-14 which depend directly or indirectly from claim 6 as obvious in view of Sakagami. Applicant traverses this rejection and seeks favorable reconsideration in view of the following remarks.

Each of claims 7-14 are not obvious in view of Sakagami for the same reasons that claim 6 is neither anticipated by nor rendered obvious as discussed above.

Furthermore, with respect to claim 7, the Examiner's assertion that "it would have been obvious ... to perform step c) at appropriate temperature intervals in order to provide the most complete removal of contaminate, including intervals occurring as the heated pump cooled" is ill-founded.

Applicant submits in accordance with the presently claimed invention that by restarting the pump, in steps, before the pump comes to a halt, the rotor contracts slightly and progressively comes closer to the stator, thereby further biting into the process material contaminate, and effectively, selectively, and progressively removing portions of the process material contaminant, wearing it away, similar to a milling cutter, so that the process material contaminant is removed in successive stages, as contrasted to trying to remove it all, in one attempt, when the pump is cold.

Applicant respectfully submits that dependent claim 7 is not rendered obvious by Sakagami which discloses virtually the opposite of dependent claim 7 (and claim 6 from which it depends). More particularly, Sakagami can be said to disclose that "Before (emphasis supplied) starting the turbo vacuum pump, the magnetic bearings are operated to displace a rotor position and to scrape off the reaction products which have deposited inside the pump. In addition, before (emphasis supplied) starting the turbo vacuum pump, a stator of the pump is heated up to decrease a binding force of the reaction products. Therefore, the pump can be restarted, even if the rotor has locked by

the solidification of deposited reaction products formed during stopping of the pump.”  
(Abstract Sakagami)

As stated above, the teachings of Sakagami are such that they would not render obvious, and would teach away from the teachings of the present invention and more particularly, rejected claims 7-14.

With respect to the rejection of claims 8-14 as obvious as a matter of design choice in view of Sakagami, Applicant respectfully submits that claims 8-14 which depend from claim 6 or 7 are not rendered obvious in view of Sakagami for at least the same reasons that claim 6 and claim 7 are each neither anticipated nor rendered obvious.


Applicant acknowledges with appreciation that claim 15 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has amended claim 15 to be in independent form and which Applicant submits should be allowed.

In conclusion, Applicant submits in view of the foregoing amendments and remarks that claims 6 and 16 are neither anticipated nor rendered obvious, claims 7-14 are not obvious, and that amended claim 15 is in condition for allowance.

Applicant solicits the Examiner's allowance of the claims, and that the application be promptly passed to issued.

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